CLAIMS

1. A system of connected computer apparatus, comprising a programmable user processing apparatus for use by a user and at least one storage apparatus, the storage apparatus storing data defining separate components of at least one processing application, wherein the user processing apparatus is configured to fetch data defining components of a processing application to be used by the user from the storage apparatus, and to install the components to enable the application to be used by the user.

2. A system according to claim 1, wherein the user processing apparatus is configured to re-fetch data defining one or more of the components in accordance with defined rules and to use the re-fetched data for the application.

3. A system according to claim 1 ~~or claim 2~~, wherein the user processing apparatus is configured to re-fetch data defining one or more of the components in accordance with user instructions and to use the re-fetched data for the application.

4. A system according to ~~any preceding~~ claim 1, wherein the user processing apparatus is operable to store data

defining at least one of the received components after the application is shut down, and to use the stored data when the application is reused by the user.

5. A system according to claim 4, wherein the user processing apparatus is operable to store and reuse the data in accordance with defined rules.

6. A system according to ~~any preceding~~ claim, wherein the data defining each component defines any further components which are needed by the component, and wherein the user processing apparatus is configured to receive user instructions defining an application, to determine a first component needed for the application, to fetch the first component and identify any further components required, to fetch any further components required, and to continue identifying and fetching components until all of the components for the required application have been obtained.

7. A system according to claim 6, wherein the user processing apparatus is operable to determine the first component from user instructions.

8. A system according to claim 6 ~~or claim 7~~, wherein the user processing apparatus is operable to determine the first component from a database of components.

9. A system according to ~~any preceding~~ claim 1, wherein the user processing apparatus is configured to install the components so that the components are isolated from each other and to permit operational interaction between the components in accordance with defined interaction rules.

10. A system according to claim 9, wherein the data defining the components includes interaction rules.

11. A system according to claim 10, wherein the rules defined in the data defining components include rules defining functions within a component which will be made available to other components of a specified type.

12. A system according to ~~any preceding~~ claim 1, wherein the user processing apparatus is configured to install the components so that the components are isolated from resources of the user processing apparatus, and to permit access by the components to the isolated resources in accordance with defined rules.

13. A system according to claim 12, wherein the user processing apparatus is configured to route each request from a component for access to a resource to a security manager, the security manager being operable to determine whether to permit the access in accordance with pre-

stored rules.

14. A system according to ~~any of~~ claims 9 ~~to 13~~, wherein the user processing apparatus is provided with a Java virtual machine and is arranged to load each component into the Java virtual machine.

15. A system according to claim 14, wherein the user processing apparatus is configured to load each component into the Java virtual machine using a different classloader.

16. A system according to ~~any preceding~~ claim 1, wherein the user processing apparatus is configured to provide threads to run each received component, and is further configured to manage the threads such that a component can not change a thread other than one under which it is running.

17. A system according to ~~any preceding~~ claim 1, wherein the user processing apparatus is configured to provide threads to run each received component, and is further configured to manage the threads to prevent a component setting the priority of a thread above a predetermined level.

18. A system according to claim 17, wherein the user

processing apparatus is configured to set the predetermined level in dependence upon the priority of the threads for running its control functions to ensure that a component cannot override a control function.

19. A system according to ~~any preceding~~ claim 1, wherein the user processing apparatus is configured to test received data defining a component to determine whether the component is from a given supplier.

20. A system according to ~~any preceding~~ claim 1, wherein the user processing apparatus is configured to test received data defining a component to determine whether the data defining the component has been changed since it was provided by the supplier.

21. A system according to ~~any preceding~~ claim 1, wherein the user processing apparatus is operable to use a given component in a plurality of applications.

22. A programmable processing apparatus for use in a system according to claim 1, comprising:

means for downloading data defining a plurality of separate components of a processing application from one or more external apparatus when the programmable processing apparatus is connected to the external apparatus; and

means for installing the received components to enable the application to be used by a user.

23. A storage apparatus for use in a system according to claim 1, comprising memory ~~means~~ storing data defining at least one component of a processing application to be transmitted to a programmable user processing apparatus.

24. A method of operating a plurality of computer apparatus, comprising:

transmitting data stored on at least one apparatus defining a plurality of separate components of a processing application to a programmable user processing apparatus; and

loading the received data into the programmable apparatus to provide the processing application for use by a user.

25. A method of operating a programmable processing apparatus, comprising:

downloading data defining a plurality of separate components of a processing application from one or more external apparatus; and

installing the received components to provide the application for use by a user.

26. A storage device storing instructions for causing

a programmable processing apparatus to become operable to fetch data defining components of an application from one or more external apparatus when the programmable processing apparatus is connected to the external apparatus, and to install the components to enable the application to be run.

27. A signal conveying instructions for causing a programmable processing apparatus to become operable to fetch data defining components of an application from one or more external apparatus when the programmable processing apparatus is connected to the external apparatus, and to install the components to enable the application to be run.

28. A programmable processing apparatus, comprising:

receiving means for receiving data defining a plurality of separate components to make up a processing application; and

loading means for installing the received components to enable the application to be run;

wherein the loading means is arranged to install the components such that the components are isolated from each other and so as to permit operational interaction between the components in accordance with defined rules.

29. Apparatus according to claim 28, wherein the loading

~~means~~ is configured to permit operational interaction between the components in accordance with rules defined in received data defining the components.

30. Apparatus according to claim 29, wherein the rules defined in the data defining components include rules defining functions within a component which will be made available to other components of a specified type.

31. Apparatus according to any of claims 28 to 30, wherein the loading means is configured to install the data so that the components are isolated from resources of the apparatus, and to permit access by the components to the isolated resources in accordance with defined rules.

32. Apparatus according to claim 31, wherein the loading ~~means~~ is configured to route each request from a component for access to a resource to a security manager, the security manager being operable to determine whether to permit the access in accordance with pre-stored rules.

33. Apparatus according to any of claims 28 to 32, wherein the loading means is arranged to install each component into a Java virtual machine.

34. Apparatus according to claim 33, wherein the loading

means is operable to install each component using a different classloader.

35. Apparatus according to any of claims 28 to 34, wherein the receiving means is operable to receive data defining a component from a storage medium.

36. Apparatus according to any of claims 28 to 34, wherein the receiving means is operable to receive data defining a component transmitted as a signal from an external apparatus.

37. Apparatus according to any of claims 28 to 36, wherein the loading means is operable to use a given component in a plurality of applications.

38. A method of operating a programmable processing apparatus, comprising:

receiving data defining a plurality of separate components to make up a processing application; and

installing the received components to enable the application to be run, such that the components are isolated from each other and so as to permit operational interaction between the components in accordance with defined rules.

39. A storage device storing instructions for causing

a programmable processing apparatus to become configured as an apparatus as claimed in ~~any of~~ claims 28 ~~to 37~~.

40. A signal conveying instructions for causing a programmable processing apparatus to become configured as an apparatus as claimed in ~~any of~~ claims 28 ~~to 37~~.

41. A signal conveying data defining a component for forming part of at least one processing application.

42 ~~40~~. A storage device storing data defining a component for forming part of at least one processing application.